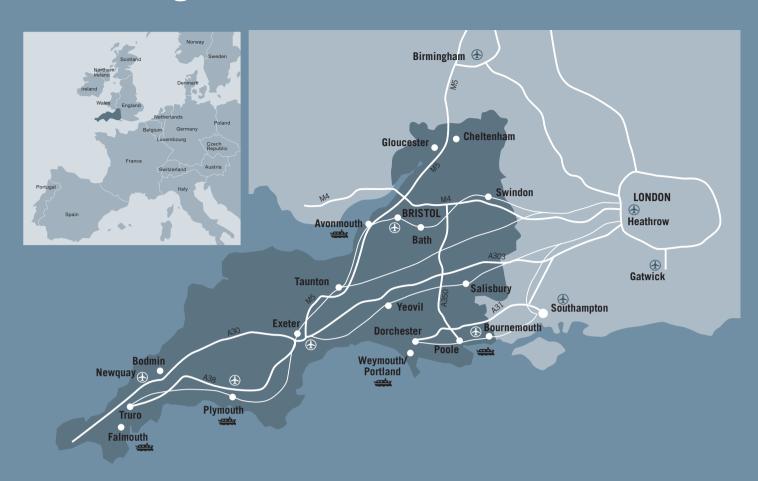
## www.sw-england.com



## HOW TO CONTACT US

The South West Regional Development Agency (South West RDA) acts as a single point of contact for companies, providing a comprehensive service for any company considering a business investment in the region.

South West of England Regional Development Agency North Quay House, Sutton Harbour,

#### **NORTH AMERICA:**

South West of England Regional Development Agency

Tel: + 1 847 328 3644

#### ASIA PACIFIC:

South West of England Regional Development Agency Tel: + 81 355 494 184







## STRENGTH IN DEPTH IN MARINE **TECHNOLOGY**



# EXPLORE OUR STRENGTH IN MARINE TECHNOLOGY

The UK is one of the world's most significant maritime nations and South West England plays a major part within it. The UK's Department of Trade and Industry describes the region's marine industry cluster as 'significant, established and deep'.

South West England's history is inextricably linked to the sea by virtue of its stunning 700 mile coastline - some of which has been designated as a **UNESCO World Heritage Site**. This beauty gives the marine sector in the region its unique flavour. Its beauty, however, is more than skin deep.

South West England's marine industry spans the construction of some of the world's most advanced pleasure boats, large ship building and repair, offshore structures, defence businesses, marine equipment, marinas and sailing schools, water-sport centres, service businesses, marine sciences and a host of other related activities.

The sector has a turnover of around £1 billion (\$1.6 billion) per annum and employs over 20.000 people.

Whilst the companies mentioned in the following pages are relatively large, the region also has hundreds of supporting SMEs, which give the sector diversity and flexibility.

South West England is a perfect location for maritime businesses. The UK itself, with a population of 59 million, represents a significant market for marine products and services. It has tariff-free access to the EU market of over 370 million people - the world's largest trading area.

South West England also has a wide range of public and private sector R&D, design, manufacturing, and management skills - which make it an ideal place for establishing a business.

This brochure is far from exhaustive but is designed to provide a taste of the region's strengths within the 2,700 or so marine businesses in the region.

The South West of England Regional Development Agency (South West RDA) helps companies to establish in the region by

- Assisting in site and property selection
- Providing advice, analysis and local insight
- Identifying relevant research & technology and establishing the links to access them
- Introducing them to academic institutions, trade bodies local authorities and professional services
- Advising on public sector funding and support
- Organising customised tours of the region
- Advising central Government on behalf of the industry on issues affecting it

The agency is also committed, in conjunction with **Business Link**, to assisting existing businesses to grow, and organising regular after-care visits to key businesses.



#### POWER AND SAILING BOATS

This sector has seen strong growth in recent years and the UK has seen a trend towards the production of larger and more expensive models. South West England is home to a number of companies with a global reputation for style, performance and quality.

Leading South West England companies such as **Devonport Yachts** (a division of Devonport Management Limited) and **Pendennis Shipyard** have joined a new marketing initiative and adopted the 'Superyacht UK' brand.

There are a number of companies that have grown their businesses by concentrating on advanced design, high performance materials and efficient manufacturing techniques which have resulted in commercial success.

One such example is **Sunseeker International** based in Poole, who are world-leading designers and manufacturers of luxury motor yachts. The company exports 99% of its products throughout Europe, the Middle East, North America and Asia, making it a truly global operation.

**Princess Yachts International** based in Plymouth, design and build high performance power boats which are often destined for markets throughout Europe, the Middle East, the Pacific Rim and America.

**Devonport Management Ltd (DML)** also builds the latest generation of Tamar-class lifeboats for the **Royal National Lifeboat Institution (RNLI)**, which are extremely rugged and designed to operate in any weather conditions.

**Pendennis Shipyard**, established in 1989, has recently embarked on a major development which will provide an environmentally controlled dry dock capable of refitting yachts up to 70 metres. The company has produced other high performance products such as wind turbine blades.

Cornish Crabbers (part of the Select Yacht Group Ltd) and Rustler Yachts (recently expanded to incorporate Bowman and Starlight Yachts) are good examples of two companies which have an excellent reputation for build quality that reaches far beyond the LIK

A recent success has been the investment by **Hunter Marine Corporation** in a 120,000 ft² factory to produce a range of quality sailing boats. Trading as **Luhrs Marine**, the company has developed a network of European distributors and is enjoying considerable success in the European market and beyond with its British-built boats.

We have been delighted with our decision to base our European manufacturing and sales out of Portland, Dorset. The factory, located beside a deep water harbour, benefits from an extremely skilled local work force, currently employing nearly 100 staff, with plans to expand with the introduction of new sailboat models. We are looking forward to a long and prosperous future here in South West England

Stephen Cutsforth, Managing Director, Luhrs Marine Lto A division of Hunter Marine Corporation, Florida. USA

The region is also well represented with companies which manufacture work boats, ribs, rowing boats, canoes... and even surfboards!

**Osprey Quay** in Portland provides an ideal location for leisure marine businesses. The waterfront site, acquired by the South West RDA, is home to **Weymouth and Portland Sailing Academy** which plans to set up an £8 million (\$13 million) new world-class sports facility, providing a sailing centre of national excellence.



#### COMMERCIAL MARINE

Supplying quality key components to the world's shipbuilders, from pumps and propellers to shafts and sterntubes, has become something of a specialist area for South West England - as these businesses illustrate.

**Hamworthy KSE** is a leading designer and manufacturer of reliable, environmentally sound solutions for all types of merchant and naval vessels and offshore applications. The company specialises in innovative and often highly customised designs for marine gas handling, pumping and wastewater treatment systems.

Its systems, whilst largely unseen, play crucial roles in ensuring safe transport of liquid and gas cargoes, as well as minimising the effect of ships' waste on the environment.

**Teignbridge Propellers** is part of the American **Brunswick Corporation**, one of the world's largest marine companies.

Teignbridge are a world leading supplier of propellers and associated sterngear, such as shafts, rudders, sterntubes and bearings. Core skills include CAD design, casting, CNC production and hand-finishing by craftsmen.

**Perkins Sabre** marine engines offer a wide range of sophisticated diesel engines used for propulsion and generator sets in powerboats and work boats across the world. They enjoy a considerable reputation for reliability and long life.

US-owned **Woodward Diesel Systems** undertake extensive R&D in Gloucestershire where they manufacture heavy duty diesel engine fuel-injection pumps and injector systems for large scale marine and industrial applications.



LPG (Liquid Petroleum Gas) 'MV Anne Laure' fitted with complete Hamworthy KSE cargo handling package: reliquefaction plant, deepwell pumps and inert gas generator system.

## DEFENCE BUSINESSES

The longstanding role of South West England as a base for many of the Royal Navy's frontline operations has fostered a hugely powerful marine defence sector. Many of these businesses have evolved from **Ministry of Defence (MoD)** operations into world class businesses supplying a global market.

**Devonport Royal Dockyard** is one of the most important naval bases in the UK - and has been for over 300 years. **Devonport Management Ltd (DML)** is responsible for the maintenance and refitting of the Royal Navy's submarine flotilla in addition to undertaking work on a range of surface ships. It is one of the few businesses that, with some certainty, knows the level and nature of its work over the next decade or so.

It has the skills to design, fabricate and repair practically any form of mechanical or electrical system to MoD standards. As well as directly employing over 4,000 staff, DML indirectly supports a further 12,000 marine related jobs in its supply chain.

The award of the *Future Aircraft Carrier Programme* to an alliance comprising **BAE Systems** and **Thales** is one of the largest ever contracts placed in the UK- worth an estimated £10 billion (\$16 billion). The successful Thales design was supported by **BMT Defence Services**, based in Bath, which is the UK's only independent company with a whole-warship design capability.

**BAE Systems** is the UK's largest defence contractor and, in addition to extensive aerospace activities in the region, has its Prime Contracting Office for the Type 45 Destroyer based near to the MoD's procurement offices at Abbeywood in Bristol.

Similarly, **Rolls-Royce**, who are a major supplier of marine equipment, engines and propulsion systems to the world's navies, have their naval and marine systems headquarters in Bristol.

Thales Underwater Systems Ltd design and build advanced shipborne and submarine sonar equipment which are used by navies across the world. Other organisations active in this field are Defence Science Technology Laboratory (DSTL), an agency of the MoD and QinetiQ, based at the MoD's research facilities at Winfrith. The latter have established a Centre for Submarine Technology which makes advanced military-derived technology available to commercial customers.



THE SOUTH WEST IS LEADING THE WAY IN THE SUSTAINABLE DEVELOPMENT OF ITS UNIQUE NATURAL ENVIRONMENT THROUGH ITS VISION TO BE THE UK'S CENTRE FOR GREEN, CLEAN AND SMART BUSINESS AND MANUFACTURING; IT'S ALSO A FABULOUS PLACE TO LIVE!

PROFESSOR NICOLAS J.P. OWENS - DIRECTOR OF PLYMOUTH MARINE LABORATORY

## SPECIALIST BUSINESSES SECTOR GROUPS/

Developing cutting edge solutions for related sectors has paid dividends for a number of South West England based businesses, taking marine-based technology into growth areas such as offshore exploration and civil engineering.

**ABB Offshore Systems**, who have two sites in the region, are highly successful in the design and manufacture of subsea assemblies used to extract oil and gas from offshore oil fields.

The company has invested heavily in R&D and has been rewarded with large orders from major oil companies - including a significant share of an order for over £100 million (\$166 million) for the development of a Norwegian oil field.

The importance of the sea as a source of minerals and as a place where structures can be built has lead to the success of **Seacore Ltd** of Helston in Cornwall. This marine drilling and civil engineering contractor is currently working on exploration and civil projects around the world.

### MARINE SCIENCE

Marine, environmental and biological sciences are increasingly important areas of research. Again, the region has a number of strengths

Plymouth has a concentration of marine science organisations which include the Marine Biological Association of the UK (MBA), Plymouth Marine Laboratory (PML), the Sir Alister Hardy Foundation for Ocean Science and the University of Plymouth's Institute of Marine Studies and Environmental Research Centre.

There has been marine research in Plymouth since the establishment of the Marine Biological Association Laboratory in 1888. This long and distinguished history includes the award of the Nobel Prize for the discovery of the mechanism of nerve conductance using squid as a model organism. The MBA is also undertaking fundamental work on the impact of climate change and fisheries on marine ecosystems using records stretching back over 100 years.

**PML** is involved in satellite sensing of the oceans and is the UK processing centre for NASA - working closely with the European Space Agency on the latest generation of earth observation satellites.

Alongside this the region's universities have departments which are forging links with British and overseas businesses in a number of emerging sectors.

The School of Biological Sciences and Chemical Sciences at the University of Exeter and the Departments of Earth Science, Biochemistry, and Biological Sciences at the University of Bristol all undertake research into the biology of marine organisms.

In addition to this specialism, the **Environmental Microbiology Group** at the **University of Exeter** has expertise in offshore oil recovery.

The **University of Bristol** has long been a centre of excellence in the fields of coastal engineering and tidal power research. Currently it is actively promoting a cheaper and more reliable system of coastal defence and port engineering; new methods of capturing tidal and wave power; better management systems for soft cliffs and beach defences and the risk of submarine avalanches.

## SECTOR GROUPS/ TRADE ASSOCIATIONS

The UK has a huge number of marine-related trade organisations, reflecting the importance of the sector. The South West RDA is one of the main sponsors of **Marine South West** - a forum for the industry to express ways in which the public sector might assist in the development of the sector.

European Union funds have been made available to offer subsidies for skills and training courses, ranging from one-day workshops up to MBA programmes. Initiatives to adopt best practice in 'lean' manufacturing and supply chain developments are other issues where **Marine South West** is active.

Marine South West has been recognised as being an exemplar of best practice in marine sector development and in providing businesses with practical assistance and acting as an excellent networking vehicle for the industry.

The **University of Plymouth** boasts many areas of expertise including.

- The Department of Biological Sciences which has a strong focus on many aspects of marine science; its areas of expertise comprise biomolecular sciences, aquaculture and fish nutrition. The University is also recognised internationally for its research activities in ecotoxicology where it is involved in international collaborations and joint projects with industrial and academic partners.
- Organic and inorganic marine pollution is another area of research undertaken here by the Department of Environmental Science and the Environmental Research Centre.
- The **Institute of Marine Studies**' competences lie in coastal and shelf sea processes and hydrography. It is also recognised as a UK leader in marine sports science.
- The **Faculty of Technology** continues to support marine science through activities such as the control, navigation and guidance of autonomous underwater vehicles.
- One area of particular promise currently under development here is the commercial exploitation of wave energy by means of a multiple oscillating water column device, this could play an important role in South West England's intention to generate 10% of its energy requirements from renewable sources by 2010.

The **University of Bath's Department of Physics** has a strong focus on underwater acoustics and multi-scale seabed mapping, in particular with the design of new sonar instruments and techniques.

Overall, it is evident that the region has a strong university and commercial research base, enabling South West England to be comparable with the top marine research centres in Europe.

#### RESEARCH INSTITUTIONS

The **Hydrographic Office** is responsible for providing navigational information to the Royal Navy and other mariners requiring accurate, safe and efficient navigational information. Its Admiralty Charts and other publications have made it a world leader in its field.

**The Met Office** is another research-based organisation with a global reputation for scientific excellence. The organisation has relocated from Bracknell to Exeter where it uses some of the most powerful super computers available and employs over 1,000 people in ocean atmospheric modelling to provide weather and sea information to mariners around the world.

South West England universities offer excellence in mechanical and electrical/electronic engineering courses and research at **Bath, Bristol, Plymouth and West of England Universities.** 

**The University of Exeter** has particular expertise in materials research with highly developed links into the business community.

**The University of Plymouth's** main areas of expertise include oceanography, marine biology, coastal protection and logistics.

**The University of Bath** (Department of Physics) has a strong international expertise in the design of new sonar instruments, seabed mapping, and the analyses of marine risks such as buried waste and geological hazards.

**Bournemouth University** has expertise in marine ecology, marine conservation, coastal management and marine archaeology.

**Falmouth Marine School** has a range of courses including Boatbuilding, Leisure and Watersports, Marine Engineering & Marine Science aimed at servicing the increasing skill base needed by the sector.



#### **UNIVERSITIES EXPERTISE**

University of Bath	Mechanical, electronics engineering, underwater acoustics, seabed mapping	www.bath.ac.uk
University of Bristol	Materials, mechanical engineering, marine science, marine biology	www.bristol.ac.uk
Bournemouth University	Marine ecology, marine conservation, coastal management, marine archaeology	www.bournemouth.ac.uk
University of Exeter	Materials, marine biology, marine electronics, microbiology, tourism, renewable e	energy www.exeter.ac.uk
University of Plymouth	Oceanography, marine biology, coastal protection, materials, engineering, shipping, logistics	www.plymouth.ac.uk
University of West of England	Mechanical, electronics engineering, materials	www.uwe.ac.uk

#### **RESEARCH CENTRES**

UK Hydrographic Office	Provision of navigational products to the Royal Navy and merchant marine	e www.hkho.gov.uk
Marine Biological Association of the UK	Promoting scientific research into all aspects of life in the sea, including the environment on which it depends, and disseminating to the public the kn	
Met Office	Research in the field of oceanography and atmospheric science	www.metoffice.gov.uk
National Marine Aquarium	Marine biology, education	www.national-aquarium.co.uk
Plymouth Marine Laboratory	Core strategic and applied research in marine science and technology	www.pml.ac.uk
Sir Alister Hardy Foundation for Ocean Science	Operates The Continuous Plankton Recorder Survey	www.sahfos.org

#### **SECTOR GROUPS/TRADE ASSOCIATIONS**

British Marine Federation	National trade association for the UK marine industry	www.britishmarine.co.uk
EEF (Western)	Association supporting the Marine industry, regarded as a leading authority on management development and health, safety and environment management	www.eef.org.uk/western
Marine South West	Marine forum, set up with the South West RDA's support, which aims www to increase the competitiveness of the marine companies in the region	v.marine-south-west.org.uk
	A key initiative is to promote watersports in the region	www.sw-watersports.com
SEMTA	Aims to ensure that the science, engineering and manufacturing technologies sector has the knowledge and skills required to meet the challenges faced by the workforce of the future	www.semta.org.uk ne